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EXAMINER	
KLAYMAN, AMIR ARIE	
ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/541,649	ANDERSON ET AL.	
	Examiner	Art Unit	
	AMIR KLAYMAN	3711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 November 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *36,37,39-42,44,46-53 and 55-62* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *36,37,39-42,44,46-53 and 55-62* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 82 USPQ2d 1385, 1395-97 (2007) identified a number of rationales to support a conclusion of obviousness which are consistent with the proper "functional approach" to the determination of obviousness as laid down in *Graham*. Exemplary rationales that may support a conclusion of obviousness include:

(A) Combining prior art elements according to known methods to yield predictable results;

(B) Simple substitution of one known element for another to obtain predictable results;

(C) Use of known technique to improve similar devices (methods, or products) in the same way;

(D) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;

(E) " Obvious to try " – choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;

(F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations are predictable to one of ordinary skill in the art;

(G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

2. Claims 36-37, 39-40, 42, 44, 46-53, 55-58 and 62 rejected under 35 U.S.C. 103(a) as being unpatentable over Palumbo US 2002/0162477 in view of Remington US 5,224,425 and Tarassoff US 4,172,486.

As per claim 36,Palumbo discloses an amusement ride assembly for a zipline as discussed in the abstract and seen in figs 1-14 (see paragraphs [0001]-[0019], regarding Palumbo's invention as being an amusement ride, and see paragraphs [0036]-[0092], regarding a detailed explanation of operating his invention and the features forming his invention). Palumbo's ride assembly includes a rotatable endless loop cable (construed as cable (30SCD) and cable (28SCT)) spanning with a catenary between end stations (low pole (70SPL) and high pole (SPH 82)) as best seen in fig 1. The assembly includes a drive system (seen in fig 4 and discussed in paragraph [0058]) to rotate the loop cable (the system rotates cable (30) which is part of the loop cable, therefore the system is operable by a control signal (from the inverter drive as discussed in paragraph [0058]) to rotate the loop cable). Palumbo's ride also includes a passenger carrier (12TS) to free roll along the loop cable (along cable (28), i.e. part of the loop cable as discussed above) via roller wheels (22TT) as best seen in figs 2-3 (see also paragraphs [0090]-[0092], regarding the operation of the ride assembly to allow seat (12) to free roll along the loop cable). Furthermore, Palumbo's amusement ride includes an electronic control system (construed as inverter drive) as discussed in paragraph [0058] (see also paragraph [0091] that a computer or PLC could be added to in order to automate the system; thus the control system is configured to control the

operation of the system via control signals). Also, Palumbo discloses stopping/halting a passenger carrier (12) from free-rolling by using brake pad (25TT) to be engaged with braking block (96BTI) upon blocking tower system (88BT) as seen in figs 2 (regarding brake pad (25)) 7 (regarding the blocking pad (96)) and discussed in paragraphs [0061]-[0066].

Palumbo is silent regarding a passenger carrier having clamping mechanism to be operated by a control signal in order to clamp a passenger carrier to a loop cable at a position between end stations.

With respect to a clamping mechanism within a passenger carrier, in the field of amusement ride assemblies, Remington teaches a car assembly (63) having a passenger seat (54) (i.e. a passenger carrier) to be free rolled upon loop cable (1) in figs 3-4 as well as column 5, line, 50 to column 7, line 16, and column 3, lines 60-61 (wherein the carrier passenger being free-rolled upon a cable loop (1)). The passenger carrier has a clamping mechanism (construed as pulley (45), brake shoe (49), brake spring (62), handle (47), and chain/rope (48)) as seen in fig 2 and discussed in column 7, lines 19-52. The passenger carrier (63) can be clamped to a loop cable (1) between stations as seen in fig 3 (also, as discussed in column 7, lines 19-27, wherein the clamping of a passenger carrier (63) to lop cable (1) can be done by a rider at any time) by pulling handle (47) by a rider. Remington's clamping mechanism is used to halt /stop/clamp a passenger carrier while free rolled upon a loop cable to the loop cable in a manually fashion (i.e. not via control signal). Therefore, it would have been obvious at the time the invention was made to one of ordinary skill in the art to from Palumbo's

passenger carrier with a clamping mechanism as taught by Remington for the reason that a skilled artisan would have been motivated in providing a simple substitution for one known element (Remington's system to halt/stop a passenger carrier from a free-roll upon a loop cable) for another (Palumbo's system to halt/stop a passenger carrier from a free-roll upon a loop cable) to obtain the predictable results of halting/stopping a free-rolling passenger carrier upon a loop cable in order to bring the carrier to a complete stop and unload a rider from the amusement ride at the end of the ride. As discussed above Remington clamping mechanism is being activated in a manually fashion by pulling handle (47) and not via control signal.

With respect to a clamping mechanism being activated (i.e. clamped) via control signals, in the field of rotatable endless loop systems, Tarassoff discloses an aerial loop (10) carrying passenger cars (24)-(28) in figs 1-4 (see column 3, lines 35-38, wherein the cars can carry materials or passengers; see also column 1, lines 5-35). Each car has a clamping mechanism (construed as sheaves (40), grip (38), and grip lever (48)) as best seen in figs 4-5. The passenger carrier will be clamped (i.e. stop/halt) via lever (48) using a detector being synchronized with controller (78) as discussed in column 3, line 60 to column 4, line 42. Thus, Tarassoff teaches a clamping mechanism to be actuated by a control signal.

It would have been obvious at the time the invention was made to one of ordinary skill in the art to form Remington's mechanical clamping mechanism as an electronic clamping mechanism (i.e. using control signal) as taught by Tarassoff for the reason that a skilled artisan would have been motivated by Remington's teachings to use any

simple, known, suitable mechanical or electrical mechanism to brake (i.e. to clamp) a passenger carrier to a loop cable as discussed in column 3, lines 34-61. Thus, according to this teaching a skilled artisan would have been motivated to use an electrical clamping mechanism to be controlled by control signal within Remington.

The modified Palumbo's ride assembly would have had a clamping mechanism (as taught by Remington) and this clamping mechanism would have been controlled by a control signal (as taught by Tarassoff).

With respect to the function of the apparatus (i.e. using the electrical control system to activate/control the clamp mechanism to be clamped upon the cable loop as well as to drive/control the cable loop using the drive system), examiner notes that while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. In re Schreiber, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997). "[A]pparatus claims cover what a device is, not what a device does." Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990). The modified (emphasis) Palumbo's structure is fully capable of performing the same function as claimed, since his device is equipped with the same features as the claim subject matter.

In conclusion, the modified Palumbo would have a rotatable endless loop, a drive system, an electronic control system, and passenger carrier (as taught by Palumbo). The passenger carrier would have a clamping mechanism (as taught by

Remington) and the clamping mechanism would have operated via control signal to be clamped onto a loop cable (as taught by Tarassoff).

As per claims 37, 44, 49, 51, the modified Palumbo would have had an electric clamping mechanism as taught by Remington and Tarassoff as discussed above. While the passenger carrier would have reached a certain point and a certain speed (i.e. a predetermined speed) between the ends stations (poles (70) and (82)), a detector would send a signal to a controller to be prepare to stop/clamp a passenger carrier (as taught by Tarassoff) to a loop cable, and an electronic control system would been arranged to actuate a clamping mechanism to fix a passenger carrier (seat (12)) to a loop cable (cables (28) and (30)) (i.e. actuating a clamping mechanism into a closed position).

As per claims 39, 58, as discussed by Palumbo in paragraph [0091] an operator can control the operation of the ride assembly (i.e. a manual mode) or the entire ride assembly may be computerize and automate system (i.e. an automatic mode).

The modified Palumbo having a clamping mechanism (as taught by Remington) would have either a manual mode (i.e. via operator) to actuate a clamping mechanism (as well as operate a drive mechanism to drive a loop cable), and/or an automatic mode (i.e. via computerize system) to perform the same. Thus, the electronic control system would be arranged to switch between an automatic mode to a manual mode.

As per claim 40, examiner construed Tarassoff's detector as a sensor arranged to detect a proximity of a passenger carrier to an end station (construed as terminal (12)) as discussed in column 3, line 65-column 4, line 16, wherein a detection of entry into the terminal (i.e. end station) signal the arrival of a car. The modified Palumbo would have a detector (i.e. sensor as taught by Tarassoff), and would have been arranged to detect the proximity of passenger carrier (12) to an end station (for example post (70)).

As per claims 42, 50, Palumbo discloses that his ride assembly includes an electronic control unit (inverter drive) having a control box to control the movement of the drive system to drive cable (30) forward or reverse (i.e. in either direction) as discussed in paragraph [0058]. It is possible in Palumbo that the loop cable to rotate in the same direction as the carrier free-roll along the loop cable according to the examiner interpretation. The examiner construed Palumbo cable (28) and cable (30) as a loop cable, and while a passenger carrier (12) is free-rolling upon cable (28), cable (30) is capable of rotating forward/backward in the same direction as the carrier (12). For example, assuming a passenger carrier (12) is in a free-roll action on cable (28) towards pole (70) and in the same time cable (30) rotates a second carrier (12) towards the same pole (70) (this rotation could happen for many reasons, for example some technical problems with the carrier, a rider is scared and refuses to free roll along cable (28), and so on), and so in this particular scenario a passenger carrier free-rolls along a loop cable while a loop cable being rotates in the same direction.

As per claim 46, as discussed in Palumbo in paragraphs [0090]-[0092] (regarding the operation of his ride assembly), it is understood that while a carrier (12) is free rolling a long cable (28) a second carrier (12) is being moved up on cable (30) towards release block (86 TR) to be ready to free roll upon cable (28) the moment the first carrier is out of the away. Thus, Palumbo discloses a two passenger carriers (seat (12)) one being carried on a cable loop's first side (i.e. cable (28)) and the other one being carried on a cable loop's second side (i.e. cable (30)).

As per claim 47, examiner construed Palumbo's system towers (88 BT) as an intermediate station located between the end stations (pole (70) and pole (82)) to support a loop cable (i.e. cables (28) and (30)) as seen in figs 1, 11, 11a, 12, 12a, and 13.

As per claim 48, all the claim limitations are unpatentable by Palumbo in view of Remington and Tarassoff as discussed above (especially with respect to claim 36).

The modified Palumbo ride assembly would have provide a method of providing an amusement ride. The method would comprising the loading of a passenger onto a passenger carrier (seat (12)) to free-roll a long a cable (28) under gravity (i.e. actuating a clamping mechanism into an open position to allow a passenger carrier to free-roll) as seen in Palumbo's fig 1 and discussed in paragraphs [0090]-[0092]. An operator and/or a computerize system would have actuating a clamping mechanism (as taught by

Remington and Tarassoff) to fix the carrier onto a loop cable, and a loop cable would move the carrier toward an end station (poles (70) and (82)).

With respect to the step of rotating a loop cable to move a fixed passenger carrier toward an end station, while seat (12) would being actuated (via a clamping mechanism) to a loop cable at any time (as taught by Remington in column 7, lines 23-26), the modified loop cable (28) would be rotated in order to move the carrier (12) toward end station (pole (70)) to be clear out of the away to allow a second carrier to free roll thereon.

As per claims 52, 56, 57, all the claims limitations are unpatentable by Palumbo in view of Remington and Tarassoff as discussed above with respect to claim 36.

With respect to the ride assembly comprising an additional cascaded stage (claim 52), Remington discloses that the ride assembly could include several cable rides in a series such that one could get from one to another in column 5, lines 19-24. Thus, Remington teaches a transfer of a passenger carrier (with a passenger original car) between a loop cable's first stage (a first passenger loading area, i.e. a cascaded stage) to a loop cable's second stage (a second passenger loading area) adjacent to each other.

As per claims 53, 55, Remington discloses that the ride assembly could include several cable rides in a series such that one could get from one to another in column 5, lines 19-24. Thus, Remington teaches a transfer of a passenger carrier (with a

passenger original car) between a loop cable's first stage (a first passenger loading area) to a loop cable's second stage (a second passenger loading area) adjacent to each other.

As per claim 62, Remington discloses a clamping mechanism in fig 2 and discuss in column 7, lines 19-27. The clamping mechanism has two opposing rope clamp blocks (construed as pulley (45) and brake shoe (49)) being located on opposite sides of the loop cable (1) and which are movably mounted for reciprocating movement toward or away from each other, the rope clamp blocks being operatively connected to an actuator (construed as handle (47) coupled to chain/rope (48)) that is configured to drive movement of the clamping mechanism based on control signals between the open position in which the rope clamp blocks are displaced from the cable allowing it to freely travel through the clamping mechanism and the closed position in which the rope clamp blocks are engaged with the cable to fix it within the clamping mechanism.

With respect to the control signals of the clamping mechanism to be clamped onto a loop cable, the modified Palumbo would have had a clamping mechanism (as taught by Remington) being controlled by control signals to be clamped to a loop cable upon detecting the proximity of a passenger carrier to an end station (as taught by Tarassoff).

3. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Palumbo US 2002/0162477, Remington US 5,224,425, and Tarassoff US 4,172,486 as applied to the claims above, and further in view of Nagel US 5,759,107.

As per claim 41, the modified Palumbo is silent regarding a swivel mechanism. In the field of amusement devices, Nagel teaches an amusement device (gyroscopic amusement apparatus (2)) having an outer ring (4) for 360º rotational movement about horizontal axis and inner ring (6) for 360º for vertical axis by drive means as discussed in column 2 lines 29-36 (see figs 1-7 regarding these drive means, i.e. swivel mechanism).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to provide the modified Palumbo's amusement ride device with a swivel mechanism to rotate the passenger carrier around a vertical axis as taught by Nagel for the reason that a skilled artisan would have been motivated in applying a known technique (a 360 º rotation movement as taught by Nagel) to a known device (the modified Palumbo's amusement ride device) ready for improvement to obtain the predictable results of user's preference (to add a swivel mechanism to a passenger carrier) for entertainment purposes.

4. Claims 59-60 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Palumbo US 2002/0162477, Remington US 5,224,425, and Tarassoff US 4,172,486 as applied to claim 36 above, and further in view of Booker US 3,854,554.

As per claims 59 -61,Tarassoff teaches a single control system (78) communicate with end stations (16) and (18) as seen in fig 1 and discussed in column 3, line 5 to column 4, line 42. It is understood that controller (78) communicates with detector via radio link.

The modified Palumbo does not disclose an electronic control system being in each station (claim 59) or control system located within a passenger carrier (claims 60 and 61).

In the field of passenger carriers having control system communicates via radio link, Booker teaches a rotatable movement of carriers (construed as elevator cars) controlled by a control module at each station and within the passenger carrier as seen in fig 9 and discussed in column, 17 line 5 to column, 18 line 22. Booker's system includes three control systems (first system located inside the cars, indicia (454)-(460); second system car controller, indicia (462)-(468); and third system processor (452)). Thus, Booker teaches the concept of several control modules including a control module located within the passenger carrier.

It would have been obvious at the time the invention was made to one of ordinary skill in the art to provide the modified Palumbo with a control module at each station (and/or within the carrier) as taught by Booker for the reason that a skilled artisan would have been motivated to control the traveling of a passenger carrier upon an endless loop. Providing the well known aspect of control module units within each station or/and

within a passenger carrier, does not provide any new or unobvious matter. With respect to the communication between the module control done by radio link as recites in claim 59 (see Booker discussion in column, 1 line 25 to column, 2 line 37 regarding the communication of the control systems with each other via signals (construed as radio link)).

Also, with respect to a control system within each end station, the examiner notes that the court held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced, see In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). Having a control system within each end station to perform the same function of a single control system does not provide new and unexpected results, and according to the court this limitation has no patentable significance.

Response to Arguments

5. Applicant's arguments with respect to claim 36-37, 39-42, 44, 46-53, 55-62 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMIR KLAYMAN whose telephone number is (571)270-7131. The examiner can normally be reached on Mo. - Fr. (7:30AM-5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eugene KIM can be reached on (571) 272-4463. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/AK/ 1/24/11

/Gene Kim/

Supervisory Patent Examiner, Art Unit 3711